



After Elevation Duplex Avoids Flooding - Again

Full Mitigation Best Practice Story

Napa County, California

Napa, CA – In 1987, Jim Hallock bought a flood-damaged duplex and spent nearly \$50,000 to remove and replace the downstairs sheetrock and flooring. The property was flooded again in 1998 and 2003, and incurred \$100,000 in damages.

After the 2003 flood, Mr. Hallock was able to elevate the structure through the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP), sponsored by the City of Napa.

The area where Mr. Hallock's property is located is susceptible to flooding. The duplex is immediately downstream from the Behrens Street Bridge that crosses Napa Creek. During high water events, debris can collect under the bridge, causing the creek to overflow its banks. The water then flows across the road into the yard of the duplex.

In 2004, the work to elevate the structure took approximately four months. The property owner's share of the cost was \$30,000; the remainder of the cost was funded through the HMGP. Mr. Hallock estimates that the elevation project will save him about \$50,000 each time a flood occurs.

Napa Creek overflowed its banks once again during the New Year's Eve flood of 2005. The house next door to the elevated duplex received major damage, but the tenants in Mr. Hallock's duplex were safe, dry, and able to remain in their homes. The property escaped damage, and Mr. Hallock avoided loss of income.

Mr. Hallock's property is one of a group of residences that benefited from HMGP and Flood Mitigation Assistance (FMA) program funding. The City of Napa combined funds from both grant programs for the elevation project. FEMA funded 75% of the costs, and the 25% local share was paid by the property owners. The primary focus of the project was to elevate homes that would not be protected by the City's larger Napa River Flood Protection Project (NRFPP). The secondary focus was to elevate homes in the Napa Creek floodplain, which flooded in 2002 and floods more frequently than the Napa River. The property owners did not want to wait for flood protection from the NRFPP, because the Napa Creek portion of the NRFPP construction is not planned until 2009. It is estimated that the elevation project prevented about \$420,000 in flood losses following the 2005-2006 New Year's Eve storms.

Additionally, the City plans to replace the Behrens Street Bridge with a pedestrian bridge and convert Behrens Street into a dead-end street. This will greatly lessen flooding in the area as well.

Mr. Hallock praised the City of Napa for its mitigation efforts. He proclaimed "Mark Prestwick, Assistant to the City Manager, is a dynamite guy! He was incredibly helpful with the grant process in the two to three months before the elevation started...This is a government project done RIGHT!"



Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region IX**

State: **California**

County: **Napa County**

City/Community: **Napa**

Key Activity/Project Information

Sector: **Private**
Hazard Type: **Flooding**
Activity/Project Type: **Elevation, Structural**
Structure Type: **Wood Frame**
Activity/Project Start Date: **04/2004**
Activity/Project End Date: **07/2004**
Funding Source: **Hazard Mitigation Grant Program (HMGP)**
Funding Recipient: **Local Government**
Funding Recipient Name: **Napa County**
Application/Project Number: **9999**

Activity/Project Economic Analysis

Cost: **\$30,000.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Yes**
Federal Disaster #: **1155 , 01/04/1997**
Federal Disaster Year: **1997**
Value Tested By Disaster? **Yes**
Tested By Federal Disaster #: **No Federal Disaster specified**
Year First Tested: **2005**
Repetitive Loss Property? **Yes**

Reference URLs

Reference URL 1: <http://www.fema.gov/government/grant/index.shtm>
Reference URL 2: <http://www.cityofnapa.org/Menu/MnuWeather.htm>

Main Points

- Group of Napa residences benefited from HMGP and FMA program funding.
- It is estimated that the elevation project prevented about \$420,000 in flood losses following the 2005-2006 New Year's Eve storms.
- The City plans to replace the Behrens Street Bridge with a pedestrian bridge and convert Behrens Street into a dead-end street. This will greatly lessen flooding in the area as well.



Elevated duplex on Behrens Street.



Elevated duplex stayed dry.



Flooded Streets in Napa, California.



Homes adjacent to Behrens Street bridge.